



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION I
5 Post Office Square, Suite 100
Boston, MA 02109-3912

DATE: MARCH 5, 2013

TO: FILE

FROM: JANE DOLAN/RPM

RE: M69 PRACTICE HAND GRENADE SIMULATOR TRAINING REQUEST
SUPPORTING INFORMATION

MAARNG has requested approval to train with practice hand grenades in the BA-1 training area of Camp Edwards. The M228 fuse that is used with the M69 Hand Grenade Simulator contains the following items and constituents:

0.146 grams Primer Mix
43% Barium Nitrate
38% Lead Styphnate
9% Antimony Sulfide
8% Calcium Silicide
2% Tetrazene

37.58 grams Propellant M10
98% Nitrocellulose
1% Potassium Sulfate
1% Diphenylamine

0.97 grams Black Powder
74% Potassium Nitrate
15.6% Charcoal
10.4% Sulfur

3.24 grams Black Powder
74% Potassium Nitrate
15.6% Charcoal
10.4% Sulfur

EPA has proposed to allow use of up to 4,300 practice grenades during a training year. This would equate to the potential release of 238.56 grams of lead styphnate, and 56.50 grams of antimony sulfide over the area of the BA-1 training area in which these grenades are proposed to be used. The calculated MASC value for lead using a source length of 400 feet is 906 mg/kg, and the amount of antimony is 358 mg/kg. The amount of lead potentially released is well below the calculated

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MASC value and should, therefore, not be a potential leaching threat to groundwater. and 358 mg/kg for antimony.